Title (en)

FIBER OPTIC GYRO

Publication

EP 0418539 A3 19920129 (EN)

Application

EP 90115328 A 19900809

Priority

- JP 20886089 A 19890811
- JP 26758289 A 19891013

Abstract (en)

[origin: EP0418539A2] In a fiber optic gyro in which a biasing phase modulator (21) and a ramp phase modulator (22) are provided at the one end and the other end of an optical fiber coil, (17) a biasing voltage and a ramp voltage are applied to the phase modulators to induce a phase difference between two rays of light which propagate through the optical fiber coil in opposite directions, the interference light is detected by a photodetector (19), phase difference component is obtained from the photodetector output by a synchronous detector (55), and the synchronous detector output is used to control the polarity and the frequency of the ramp voltage, an external signal is added to the synchronous detector output to fluctuate the frequency of the ramp voltage, or a component of an image frequency spaced apart from the frequency of the biasing voltage by a value twice the intermediate frequency is removed by a subtractor from the synchronous detector output, thereby improving the scale factor of the fiber optic gyro.

IPC 1-7

G01C 19/72

IPC 8 full level

G01C 19/72 (2006.01)

CPC (source: EP US)

G01C 19/726 (2013.01 - EP US)

Citation (search report)

- [XP] GB 2227834 A 19900808 - LITTON SYSTEMS INC [US]
- [A] DE 3140110 A1 19830428 - LICENTIA GMBH [DE]
- [A] EP 0297338 A1 19890104 - ALSTHOM [FR]
- ELECTRONICS & WIRELESS WORLD, vol. 95, no. 1636, February 1989, pages 190-191, Sutton, Surrey, GB; "Fibre optic gyroscope", the whole article.

Cited by

EP1882900A1; EP0501461A1; US5345307A; EP0501460A1; US5305086A; US7583384B2; WO9744637A1

Designated contracting state (EPC)

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